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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/744,180	03/30/2001	Jari Hartikainen	297-010084-U	3005

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PERMAN & GREEN  
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FAIRFIELD, CT 06824

EXAMINER
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LE, DUY K

ART UNIT	PAPER NUMBER
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2685

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/744,180

Applicant(s)

HARTIKAINEN ET AL.

Examiner

Duy K Le

Art Unit

2685

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7-15,17,18 and 20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7-15,17,18 and 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. This action is in response to amendment filed on April 7, 2004.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-5, 9-15, 17, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iera et al. (““Call-Level” and “Burst-Level” Priorities for an Effective Management of Multimedia Services in UMTS”, Proceedings IEEE INFOCOM 1996) in view of Reardon et al. (U.S. Patent 5,636,223).

As to claim 1 (Currently Amended), the Iera reference discloses a method for management of bearers in a cellular telecommunications system (see Abstract), characterized in that

at least two priority data items are associated with each bearer, the first one of the priority data items having a same value for at least two bearers associated under the same client identity (“two-level priority mechanism”, page 1365, section 3, second and third paragraphs), and

decisions whether or not to provide services for a bearer are based at least in part on the value of at least one of said at least two priority data items (“use of the priorities”, page 1366, section 4, third paragraph).

However, it does not disclose that bearers are organized into sets on at least two hierarchical levels and a priority data item is given for each set, and all bearers associated with the same client identity have the same values of a first priority data item of said at least two priority data items. The Reardon reference teaches organizing into sets on at least two hierarchical levels and a priority data item is given for each set (see Figure 4: the column corresponds to terminal priority (step 311) and the row corresponds to channel priority level (step 313). See also Col. 7, lines 5-12. For each particular terminal priority (column), there can be varying channel priority. The terminal priority is the top level and the channel priority the second level), and all bearers associated with the same client identity have the same values of a first priority data item of said at least two priority data items (see Figure 4; “step (311) selects a column in a look up table such as table (400) of FIG. 4, where the column, such as column (401) corresponds to the priority, here priority 1 with “0” being the lowest and “3” being the highest as depicted, of the terminal practicing the method” (Col. 7, lines 4-8)).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method and system of Iera to have the bearers organized into sets on at least two hierarchical levels and a priority data item is given for each set, and all bearers associated with the same client identity have the same values of a first priority data item of said at least two priority data items, as taught by Reardon, in order to determine priority access level.

As to claim 3 (Currently Amended), Iera-Reardon discloses a method according to Claim 1, characterized in that one of the hierarchical levels is the level of one bearer, and the sets on that level comprise one bearer (Figure 4; “row (403) with priority 2 again ranging from a low

priority of “0” to a high of “3”, that corresponds to the channel priority level” (Reardon, Col. 7, lines 9-12)).

As to claim 4 (Previously Presented), Iera-Reardon discloses a method according to Claim 1, characterized in that one of the hierarchical levels is the level of client identity, and the sets on that level comprise the bearers of that client identity (Reardon: see Figure 4; “step (311) selects a column in a look up table such as table (400) of FIG. 4, where the column, such as column (401) corresponds to the priority, here priority 1 with “0” being the lowest and “3) being the highest as depicted, of the terminal practicing the method” (Col. 7, lines 4-8)).

As to claims 5, 17, and 20 (Previously Presented), Iera-Reardon discloses a method according to claim 1, a cellular telecommunications system according to claim 15, and a radio network controller according to claim 18, characterized in that

at least two sets of decisions on providing service are defined (Iera; “a two-level (static and dynamic) priority mechanism is proposed to be adopted by the higher protocol levels of UMTS for the adaptation of call set-up, channel access, and admission control procedures” (Abstract, lines 8-11)),

a first combination of the priority data items is used in a first set (Iera; “Static Priority is given by the Mobile Station on a “call-basis” to each component of the multimedia traffic” (page 1365, section 3, second paragraph)) and

a second combination of the priority data items is used in a second set (Iera; “Dynamic Priority is assigned by the Base Station on a “spurt-basis” according to the traffic activity of all the components of the multimedia service” (page 1365, section 3, third paragraph)).

As to claim 9 (Previously Presented), Iera-Reardon discloses a method according to Claim 1, characterized in that at least one of the priority data items is allocated during the bearer setup procedure (Iera; “during call set-up, it could happen that enough resources are not available for accepting the call in its nominal configuration. In this case the IA packet can be temporarily queued in the reservation buffer of the BS and Static Priority is exploited as a metric to decide which of the components shall be dropped” (page 1366, section 4, third paragraph)).

As to claim 10 (Previously Presented), Iera-Reardon discloses a method according to Claim 1, characterized in that at least one priority data item is changed during the connection (Iera; “after a component of traffic coming from a multimedia terminal wins the contention for the access to the channel, it can happen that there is a temporary lack of available resources and it needs to be queued. In this case, the BS controls if another traffic component of the same service but with a lower Order\_Number (i.e., lower Static Priority) is already activated. If such is the case, the BS, while queuing the component, assigns to it a higher Dynamic Priority in respect to the other reservation requests” (page 1366, section 4, seventh paragraph)).

As to claim 11 (Previously Presented), Iera-Reardon discloses a method according to Claim 9 characterized in that the priority data item is determined by the mobile station (Iera; “Static Priority is given by the Mobile Station on a “call-basis” to each component of the multimedia traffic” (page 1365, section 3, second paragraph)).

As to claim 12 (Previously Presented), Iera-Reardon discloses a method according to Claim 9 characterized in that the priority data item is determined by the network (Iera; “Dynamic Priority is assigned by the Base Station on a “spurt-basis” according to the traffic activity of all the components of the multimedia service” (page 1365, section 3, third paragraph)).

As to claim 13 (Previously Presented), Iera-Reardon discloses a method according to Claim 1 in a telecommunications system comprising a radio access network, a core network and a mobile equipment wherein

the decisions on whether or not to provide the radio service for the connection are made in the radio access network (Iera; “during call set-up, it could happen that enough resources are not available for accepting the call in its nominal configuration. In this case the IA packet can be temporarily queued in the reservation buffer of the BS and Static Priority is exploited as a metric to decide which of the components shall be dropped” (page 1366, section 4, third paragraph)) and

the priority items are stored in the radio access network (Iera; “after a component of traffic coming from a multimedia terminal wins the contention for the access to the channel, it can happen that there is a temporary lack of available resources and it needs to be queued. In this case, the BS controls if another traffic component of the same service but with a lower Order\_Number (i.e., lower Static Priority) is already activated. If such is the case, the BS, while queuing the component, assigns to it a higher Dynamic Priority in respect to the other reservation requests” (page 1366, section 4, seventh paragraph)),

characterized in that the mobile equipment sends the core network entity controlling the bearer a request to change the value of a priority data item and the core network requests the radio access network to change the value of the priority data item (Iera; “The Static Priority given by the user to the components of the multimedia service is notified to the system by putting some information in the fields of the so called Initialization Access packet (IA). The IA packet contains information about the identification of the mobile, the required capacity and the

Art Unit: 2685

nature of traffic to be transmitted” (page 1365, section 3, fifth paragraph). “The improvement on the overall quality can be easily understood by focusing on the example of a mobile videophone communication. It seems logic to assign at the call set-up to the voice component a higher Static Priority compared to the video” (page 1366, section 4, ninth paragraph)).

As to claim 14 (Previously Presented), Iera-Reardon discloses a method according to Claim 1, characterized in that at least a required minimum value for a priority data item is defined and the bearers having a priority data item value smaller than the required minimum priority value are not given resources (Iera; “Minimum Set”, page 1366, section 4, fourth paragraph).

As to claim 15 (Currently Amended), it is the system counterpart of claim 1 (method). As cited in claim 1, Iera-Reardon discloses a cellular telecommunications system, characterized in that for management of bearers

at least two priority data items are arranged to be associated with each bearer, the first one of the priority data items having a same value for at least two bearers associated under the same client identity (Iera; “two-level priority mechanism”, page 1365, section 3, second and third paragraphs), and

decisions whether or not to provide services for a bearer are arranged to be based at least in part on the value of at least one of said at least two priority data items (Iera; “use of the priorities”, page 1366, section 4, third paragraph).

bearers are organized into sets on at least two hierarchical levels and a priority data item is given for each set (Reardon; see Figure 4: the column corresponds to terminal priority (step 311) and the row corresponds to channel priority level (step 313). See also Col. 7, lines 5-12. For



each particular terminal priority (column), there can be varying channel priority. The terminal priority is the top level and the channel priority the second level), and

all bearers associated with the same client identity have the same values of a first priority data item of said at least two priority data items (Reardon; see Figure 4; “step (311) selects a column in a look up table such as table (400) of FIG. 4, where the column, such as column (401) corresponds to the priority, here priority 1 with “0” being the lowest and “3” being the highest as depicted, of the terminal practicing the method” (Col. 7, lines 4-8)).

As to claim 18 (Currently Amended), as cited in claim 1, Iera-Reardon discloses a radio network controller for a cellular telecommunications system (Iera; “the Static Priority given by the user to the components of the multimedia service is notified to the system by putting some information in the fields of the so called Initialization Access packet (IA). It is normally used by the MS to send a set-up request to the BS” (page 1365, section 3, sixth paragraph), characterized in that for management of bearers it comprises

means for associating at least two priority data items with each bearer, the first one of the priority data items having a same value for at least two bearers associated under the same client identity (Iera; “two-level priority mechanism”, page 1365, section 3, second and third paragraphs), and

means for making decisions whether or not to provide services for a bearer based at least in part on the value of at least one of said at least two priority data items (Iera; “use of the priorities”, page 1366, section 4, third paragraph).

wherein bearers are organized into sets on at least two hierarchical levels and a priority data item is given for each set (Reardon; see Figure 4: the column corresponds to terminal

priority (step 311) and the row corresponds to channel priority level (step 313). See also Col. 7, lines 5-12. For each particular terminal priority (column), there can be varying channel priority. The terminal priority is the top level and the channel priority the second level), and all bearers associated with the same client identity have the same values of a first priority data item of said at least two priority data items (Reardon; see Figure 4; “step (311) selects a column in a look up table such as table (400) of FIG. 4, where the column, such as column (401) corresponds to the priority, here priority 1 with “0” being the lowest and “3” being the highest as depicted, of the terminal practicing the method” (Col. 7, lines 4-8)).

4. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iera et al. in view of Reardon et al. (U.S. Patent 5,636,223) and further in view of Chambers (U.S. Patent 6,256,497).

As to claim 7 (Currently Amended), Iera-Reardon discloses a method according to Claim 1. The Iera reference further discloses the value of the first priority data item is stored in the mobile station (“Static Priority is given by the Mobile Station on a “call-basis” to each component of the multimedia traffic” (page 1365, section 3, second paragraph)). However, Iera-Reardon does not expressly disclose that the value of the first priority data item is stored in the USIM. The Chambers reference teaches the value of the first priority data item is stored in the USIM (“the handheld unit UT 1 also includes a subscriber identification module (SIM) smartcard 26” (Col. 7, lines 13-15). “The SIM card 26 includes a memory M1 which stores an IMSI, which is used both for the GSM network 9 and the satellite network. The memory also stores an encryption algorithm and an authentication algorithm, and a function Ki, for terminal

identification and data encryption according to the GSM Recommendation supra” (Col. 7, lines 25-30)).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Iera-Reardon such that the value of the first priority data item is stored in the USIM, as taught by Chambers, in order to provide the static priority associated with a mobile station.

As to claim 8 (Currently Amended), Iera-Reardon discloses a method according to Claim 1. However, it does not expressly disclose that the client identity is the identity of a USIM. The Chambers reference teaches the client identity is the identity of a USIM (“the handheld unit UT 1 also includes a subscriber identification module (SIM) smartcard 26” (Col. 7, lines 13-15). “The SIM card 26 includes a memory M1 which stores an IMSI, which is used both for the GSM network 9 and the satellite network. The memory also stores an encryption algorithm and an authentication algorithm, and a function Ki, for terminal identification and data encryption according to the GSM Recommendation supra” (Col. 7, lines 25-30)).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Iera-Reardon such that the client identity is the identity of a USIM, as taught by Chambers, in order to provide the static priority associated with a mobile station.

### ***Response to Arguments***

5. Applicant's arguments filed April 7, 2004 have been fully considered but they are not persuasive.

With respect to the newly amended independent claims 1, 15, and 18, the applicants amended the claims to incorporate the limitations of claims 2 and 6 that recited bearers are organized into two hierarchical levels and that bearers associated with the same client identity have the same values of a first priority data item. These claims, as interpreted by examiner, do not indicate, as argued by the applicant, that a channel is denied based on a hierarchical level and that the channel is denied according to the first priority data item. If two bearers have the same first priority data item, then the value of the second priority data is checked. As shown in figure 2 of the application, a channel (bearer) has 2 data items associated with it. The same client identity (terminal/USIM) has the same value of first priority data item. The Reardon reference (figure 4) shows the column corresponds to terminal priority (step 311) and the row corresponds to channel priority level (step 313) (see also Col. 7, lines 5-12). For each particular terminal priority (column), there can be varying channel priority. The terminal priority is the top level and the channel priority the second level. As cited in the claims, "decisions whether or not to provide services for a bearer are based at least in part on the value of at least one of said at least two priority data items", there is no indication that a channel is denied based on a hierarchical level. It can be interpreted as one or both values be used.

### ***Conclusion***

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**


MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duy K Le whose telephone number is 703-305-5660. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F Urban can be reached on 703-305-4385. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Duy Le  
June 25, 2004

  
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